



In this context, mapping is a specification governing the bit pattern which is to be used for entering the data into a serial data sequence. A demultiplexer/allocation device distributes the data for the coded common transport channel CCTrCH over a number of physical channels Phy CH. The physical channels Phy CH are, thus,

5 constantly used to transmit data for a number of services S1, S2, S3 in each case. A physical channel Phy CH is not allocated to one service S1 or S2 or S3 alone, but rather is allocated to the coded common transport channel CCTrCH with all its services S1, S2, S3.

Since the reception end needs to reconstruct this mapping and needs to read

10 the data from the physical channels Phy CH and present them again in separate transport channels DCH for the services, signaling is necessary. This signaling in the form of TFCI values depicts the currently used combination of the transport formats TF for the services and, as shown later, the current allocation of a common channel or of a number of common channels DSCH. It has been agreed at

15 connection setup which combinations are permitted for the connection (TFCS).

Two options in the relationship between data rate and service combinations can be implemented (cf. also EP 98 122 719):

1. Each data rate GR corresponds to precisely one combination of transport formats TF.
- 20 2. For each data rate GR, a number of combinations of transport formats TF are possible which can be distinguished using TFCI values.

Figure 4 shows the mapping in a slightly modified form, with it becoming clear that the partial information item TFCI need be signaled only when physical channels Phy CH are jointly used by a number of services S1, S2, S3. If a service

25 S1 or S2 or S3 uses one physical channel Phy CH exclusively, then signaling of the partial information item TFCI can be dispensed with.

The allocation of a common channel DSCH to a connection V is shown with reference to Figures 5 and 6 using an example having two mobile stations MS and, hence, two connections V1, V2. Let it be assumed that the connections 1 and 2

30 each can transmit their data using the data rates of 16, 32 and 48 kbps, with three

